

REMARKS

Claims 1-3, 5-11, and 14-17 are pending in the application.

Based on the following Remarks, Applicant respectfully requests that the Examiner reconsider all outstanding rejections, and withdraw them.

Rejection under 35 U.S.C. § 112, ¶ 1

In paragraph 3 of the Office Action, claims 1-3, 5-11, and 14-17 were rejected under section 112, paragraph 1, due to an asserted failure to comply with the written description requirement with respect to limitations added to the claims in the Response submitted September 14, 2005. This rejection is respectfully traversed.

The limitations characterized as new matter in the Office Action are described nearly verbatim in the application as originally filed at page 3, last full paragraph (corresponding to paragraph 0012 of the corresponding published application). This paragraph reads as follows (with italics added):

In the case of a particularly preferred trench wall cutter a random number of cutting wheels is provided and have *parallel rotation axes*. A particularly preferred embodiment has *four cutting wheels*, whereof in each case two are *arranged pairwise in rotary manner about the same rotation axis*. A cross-section of the trench in the ground is preferably *rectangular*.

In view of the description in the quoted paragraph, it is respectfully submitted that the application complies with the written description requirement with respect to the limitations added in the Response submitted September 14, 2005, and that the rejection should be withdrawn.

Rejections under 35 U.S.C. § 103

In paragraph 5 of the Office Action, claims 1-3, 5-11, and 14-17 were rejected under section 103(a) as being unpatentable over Bauer et al. in view of Smith et al. This rejection is respectfully traversed as being based on a combination of references that does not teach or suggest the claimed invention.

As set forth in the DECLARATION UNDER 37 CFR § 1.132 of Josef Haas submitted herewith, the claimed invention relates to a trench wall cutter, that is, a device for marking foundation elements. Thus, the claimed invention relates exclusively to underground engineering. In contrast, the apparatus disclosed by Smith is not a machine for underground engineering but for road construction engineering. Underground engineering and road construction engineering are two completely separate fields of civil engineering, and even an expert in underground engineering usually has only limited knowledge of road construction equipment. Consequently, a person of ordinary skill in the field would not as a matter of course include the features of Smith's road construction device in a trench wall cutter. See MPEP 2141.01(a) and *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992), cited therein. In *Oetiker*, the applicant claimed an improvement in a hose clamp that differed from the prior art in the presence of a preassembly "hook"; and the Board relied upon a reference that disclosed a hook and eye fastener for use in garments, reasoning

that all hooking problems are analogous. The court held the reference was not within the field of the applicant's endeavor, and was not reasonably pertinent to the particular problem with which the inventor was concerned because it had not been shown that a person of ordinary skill, seeking to solve a problem of fastening a hose clamp, would reasonably be expected or motivated to look to fasteners for garments.

The present application presents an even stronger case than *Oetiker*, as the Declaration of Dipl.-Ing. Haas is actual evidence that a person of ordinary skill, seeking to solve a problem of in underground construction engineering, would *not* reasonably be expected or motivated to look to road construction equipment.

As further set forth in the Declaration of Dipl.-Ing. Haas, Bauer relates to a state-of-the-art trench wall cutter. In such a trench wall cutter, two pairs of cutting wheels are provided at the bottom of a frame 5, wherein the left-hand side cutting wheels rotate counterclockwise and right-hand side cutting wheels rotate clockwise (see Figure 1 of Bauer). These respective directions of rotation of the cutting wheels 11 are clearly marked with arrows in Bauer's Figure 1. Due to the chosen directions of rotation, the cutting wheels 11 serve two purposes. First of all, they cut and loosen soil material located below the trench wall cutter. Secondly, they also convey the loosened earth material and transport it out of the trench. In those known trench wall cutters, the direction of rotation of the cutting wheels cannot simply be switched over, since this would disrupt the conveying mechanism of the cutting wheels. If the direction of rotation were to be changed, the cutting wheels would transport the loosened soil material away from the suction device 7, resulting in a jam of the trench wall cutter in the ground.

As still further set forth in the Declaration of Dipl.-Ing. Haas, a mode of rotation where the left-hand cutting wheels rotate counterclockwise and the right-hand cutting wheels clockwise is also provided in the remaining documents cited in the Office Action as disclosing trench wall cutters (*cf.* Endo (see arrows in Figure 2), Sourice (see arrows in Figure 1), and Charlier (see arrows in Figure 1)).

Consequently, and in accordance with the conclusion reached by Dipl.-Ing. Haas, it is respectfully submitted that the statement at page 4, paragraph 3, of the Office Action that “it would have been obvious to replace the cutters of Bauer with the cutters of Smith in order to provide for a more efficient operation of the device in two directions as suggested in Smith” is incorrect. If the cutting wheels of Bauer were replaced with the cutting wheels of Smith and the rotation direction were swapped, this would not provide for a more efficient operation but would lead to a jam of the trench wall cutter in the ground, since the conveying mechanism would be disrupted.

Where the prior art teaches away from the claimed invention, it cannot render the claimed invention obvious. *Bausch & Lomb v. Barnes-Hind/Hydrocurve, Inc.*, 796 F.2d 443, 230 USPQ 416, 420 (Fed. Cir. 1986), *cert. denied*, 484 U.S. 823 (1987); *In re Gordon*, 221 USPQ 1125, 1127 (Fed. Cir. 1984). In *In re Gurley*, 27 F.3d 551, 31 USPQ2d 1130 (Fed. Cir. 1994), the court noted:

A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant. The degree of teaching away will of course depend on the particular facts; in general, a reference will teach away if it suggests that the line of development flowing from the reference's disclosure is unlikely to be productive of the result sought by the applicant. *See ... In re Spinnoble*, 405 F.2d 578, 587, 160 USPQ 237, 244 (CCPA 1969) (references taken in combination teach away since they would produce a ‘seemingly inoperative device’)....

Bauer and Smith taken in combination would produce a “seemingly inoperative device.” According to well-established precedent, the prior art therefore teaches *away* from the claimed invention and cannot render it obvious under section 103.

In view of the foregoing, it is respectfully submitted that the invention as recited in claims 1-3, 5-11, and 14-17 is patentable over the prior art, and that the rejection should be withdrawn.

Conclusion


All rejections have been complied with, properly traversed, or rendered moot. Thus, it now appears that the application is in condition for allowance. Should any questions arise, the Examiner is invited to call the undersigned representative so that this case may receive an early Notice of Allowance.

Favorable consideration and allowance are earnestly solicited.

Respectfully submitted,

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Attachment: DECLARATION UNDER RULE 1.132 OF JOSEF HAAS